Customer Care Solutions
RH-23 Series Transceivers

Service Tools

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DA-11 Docking Station Adapter and RF Coupler SA-36

The SA-36 is used with DA-11 for RF testing. RF tuning is not allowed by SA-36. It has been designed for calibration and soft ware update use. The Docking Station Adapter makes signal connections to the phone.

DA-11 main electric functions include:

- adjustable VBATT calibration voltage, current measurement limit voltage "VCHAR", current measurement calibration current "ICHAR"
- adjustable ADC calibration voltage via BTEMP and BSI signal
- BTEMP and BSI calibration resistor
- signals from FBUS to the phone via parallel jig
- control via FBUS or USB
- Flash OK/FAIL indication

In calibration mode DA-11 is powered by external power supply 11-16V DC. In flashing power for the phone can be taken from FPS-8 or external power supply 11-16V DC.

DA-11 main electric functions are:

- phone recognizing from BTEMP
- filters of FBUS signals

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Product Code

DA-11 Docking Station Adapter: 0770587

SA-36 RF Coupler: 0770726

Figure 1: View of DA-11 Docking Adapter

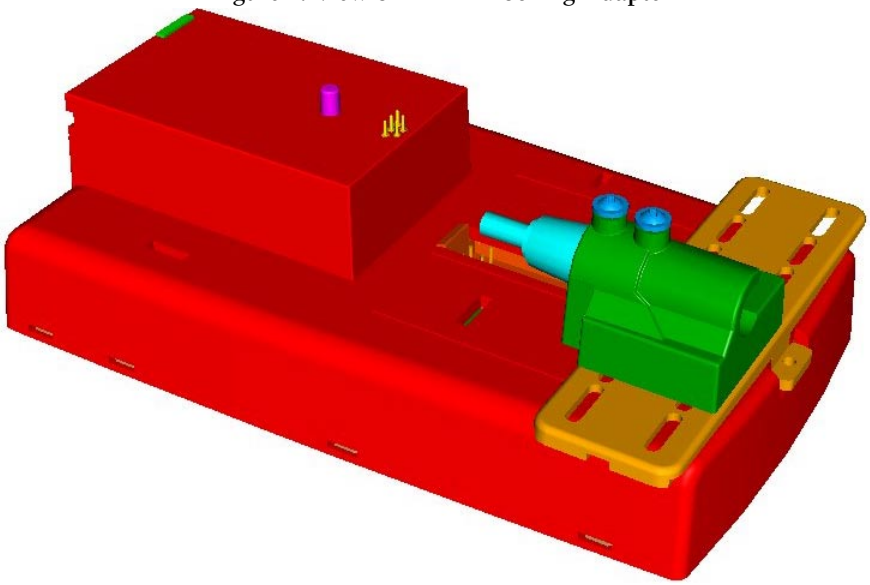

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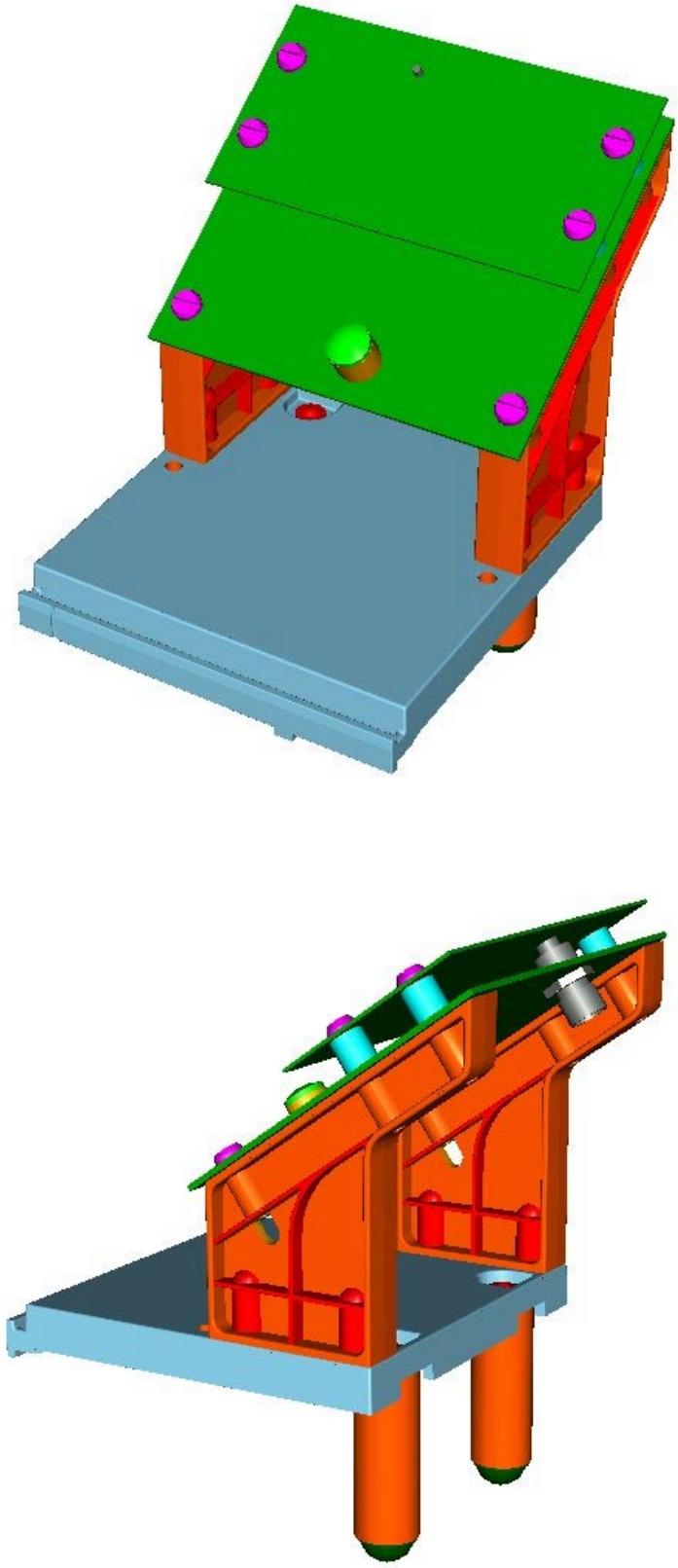
Figure 2: RF Coupler SA-36



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MJ-17 Module Test Jig

Module Test Jig MJ-17 is designed for 1AQ and 1BF (upper block) testing. It can be used for flashing, system testing and troubleshooting.

MJ-17 take in use instructions

UI board assy has been semi fixed in jig.

Upper block flex assy with needed spare parts and without the earpiece has to be assembled to the jig and can be changed when needed.

Engine pwb is just pressed in place. Please ensure the flex pwb connector and the RF connector are properly connected. If problems occur with RF connection between an RF connector and an RF probe, you can help it by loosening an RF probe from the bottom of the jig and help connecting by hand.

Instructions to assemble the upper block parts to the module jig

The phone spare parts needed in the module jig to have the upper block functionality in the jig:

1. Upper block flex assy (0263440). **NOTE: Earpiece has to be removed before assembling upper block flex assy to the jig!!**
2. LCD module 128X128 (4850347)
3. LCD module B/W 96X36 (4850361)
4. VGA camera module (4858023)
5. Shield small VGA camera (9511279)

Instructions to assemble the parts to the jig:

1. **Remove earpiece** from Upper block flex assy
2. Assemble parts 2-4 (on the list above) to upper block flex assy
3. Loosen upper block locking screws of the module jig
4. Insert upper block flex assy to the jig and ensure connector on flex pwb is connected
5. Tighten screws to keep upper block flex assy in place

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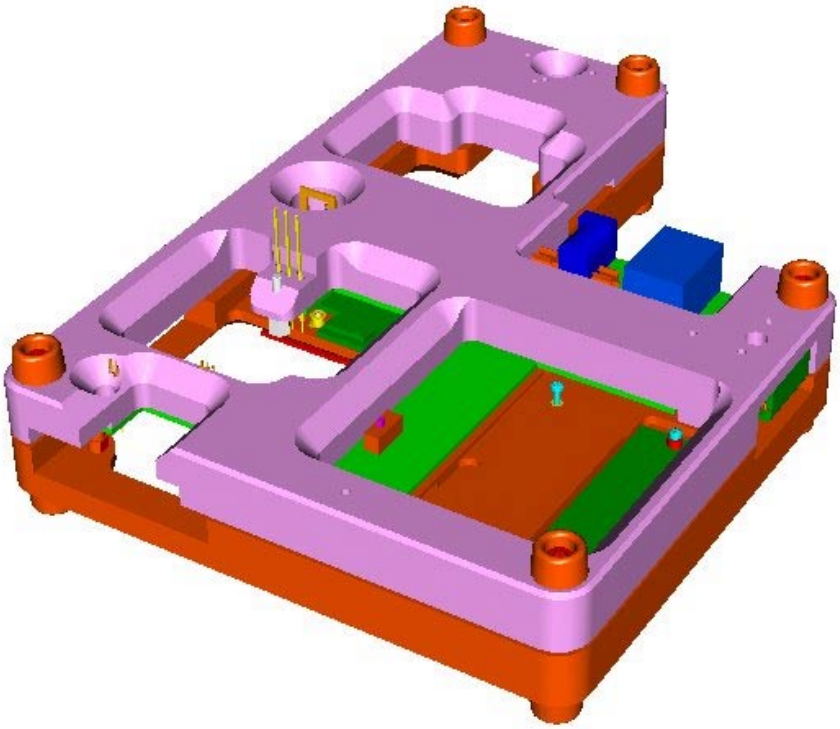
Product Code

MJ-17 Module Test Jig: 0770586

Figure 3: View of MJ-17



Note: The nominal supply voltage for MJ-17 is 4.0 V.

Over voltage protection operates at 4.5V.

If overvoltage protection is triggered, the normal jig operation can be restored by switching OFF the power supply, replacing the fuse (if not OK) and restoring valid power supply.

MJ-17 includes over voltage, overcurrent and reverse polarity protection.

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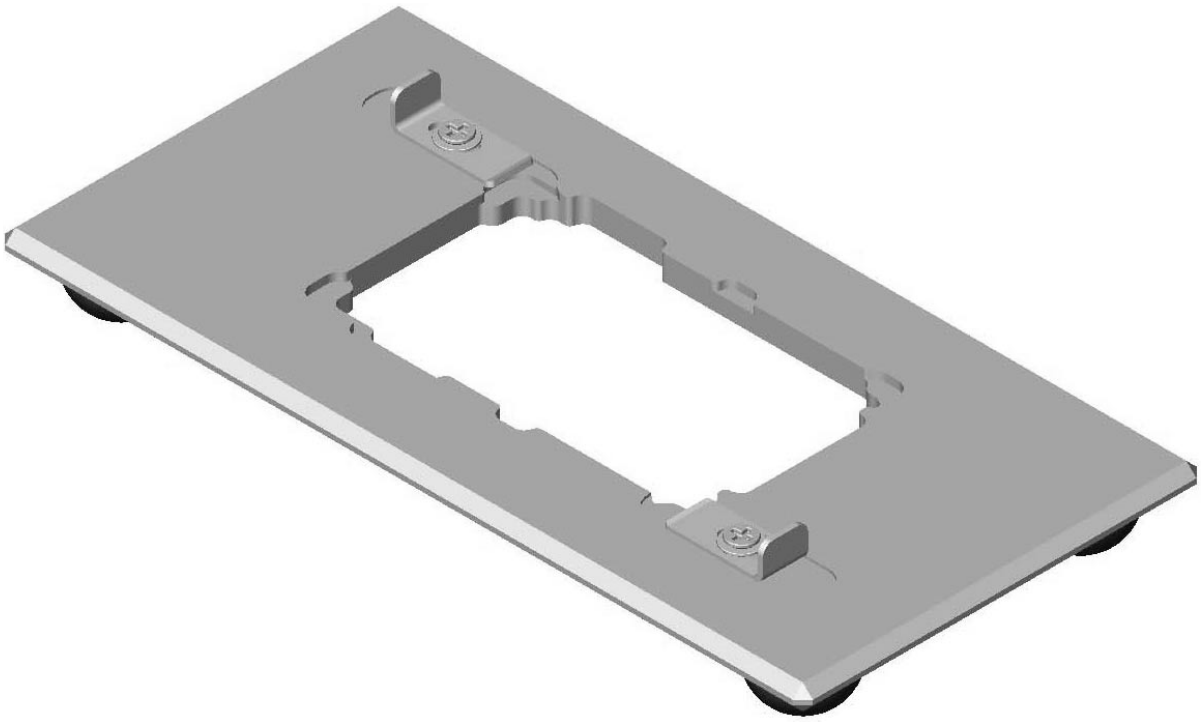
RJ-14 Soldering Jig

RJ-14 Soldering Jig is used for soldering and as a rework jig for WV8 module.

Product Code

RJ-14 Module Jig: 0770589

Figure 4: View of RJ-14



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SK-9 PA Component Rework Kit

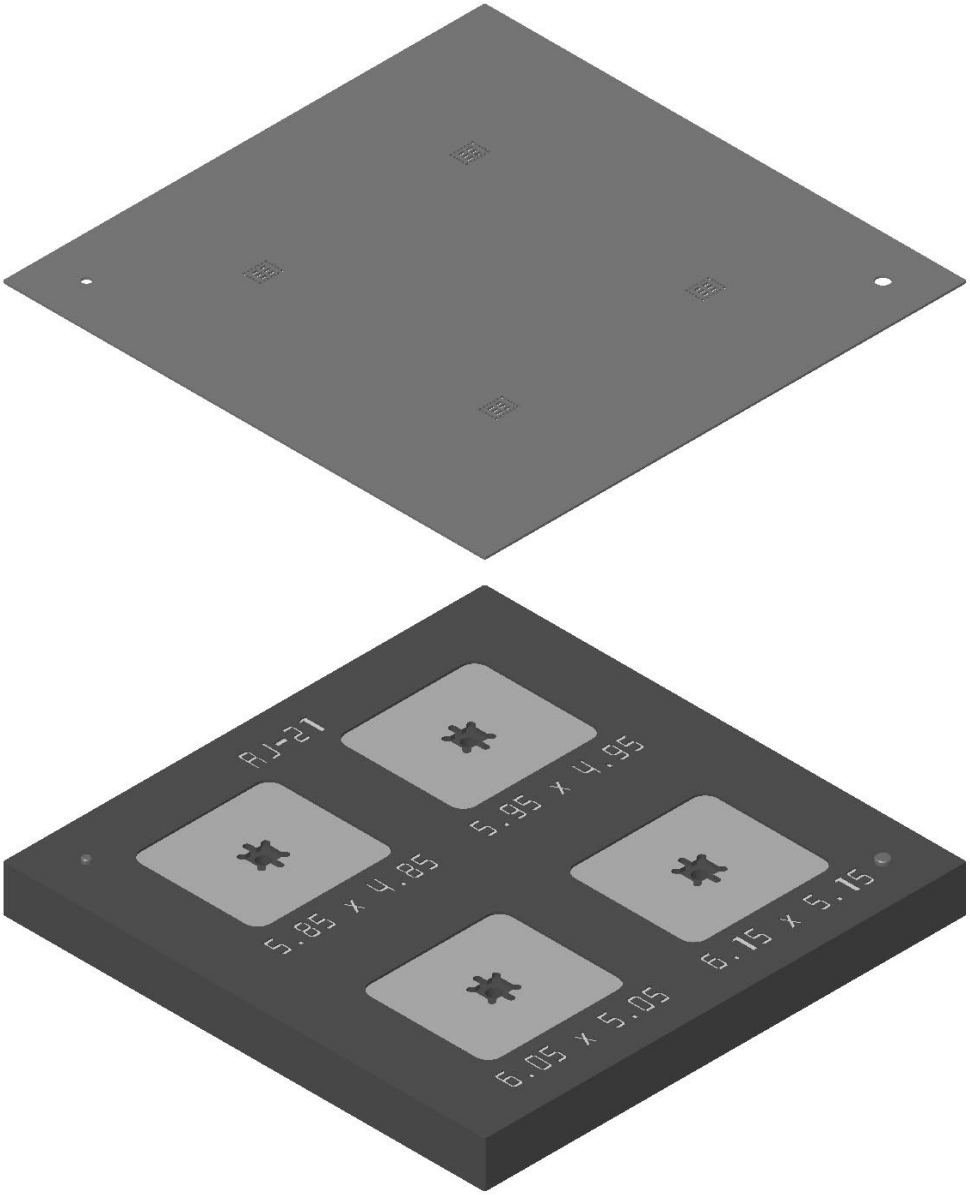
SK-9 PA Rework Kit includes ST-11 Rework Stencil and RJ-21 PA Rework Jig. SK-9 is used for paste spreading for the microLGA PA component.

ST-11 and RJ-21 can be ordered separately or as the whole SK-9 PA Rework Kit.

Product Codes

SK-9 PA Component Rework Kit:	0274819
ST-11 PA Rework Stencil:	0770881
RJ-21 PA Rework Jig:	0770849

Figure 5: View of SK-9 incl. ST-11 (above) and RJ-21 (below)



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SK-5 Rework Kit for FM radio

Includes ST-5 Rework Kit and RJ-24 Rework jig.

Product codes:

SK-5 Rework Kit:	0274507
ST-5 Rework Stencil for FM radio:	0770691
RJ-24 Rework Jig for FM radio:	0770688

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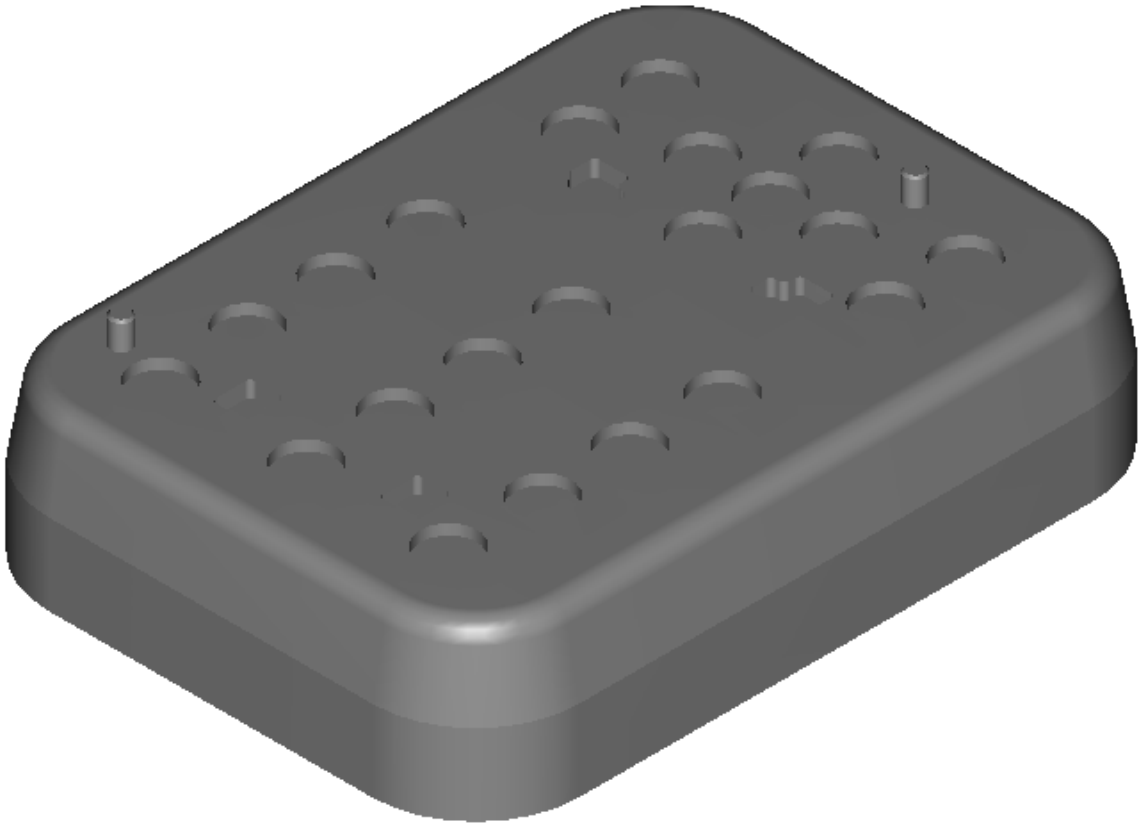
SS-28 Dome Sheet Assembly Jig

SS-28 Dome Sheet Assembly Jig is used for the dome sheet assembling.

Product Code

SS-28 Dome Sheet Assembly Jig: 0770872

Figure 6: SS-28 Dome Sheet Assembly Jig



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FPS-8 Flash Prommer (Sales Pack)

The Flash Prommer FPS-8 is used with e.g. DA-11 and JBV-1. Power is supplied to FPS-8 from the Universal Power Supply.

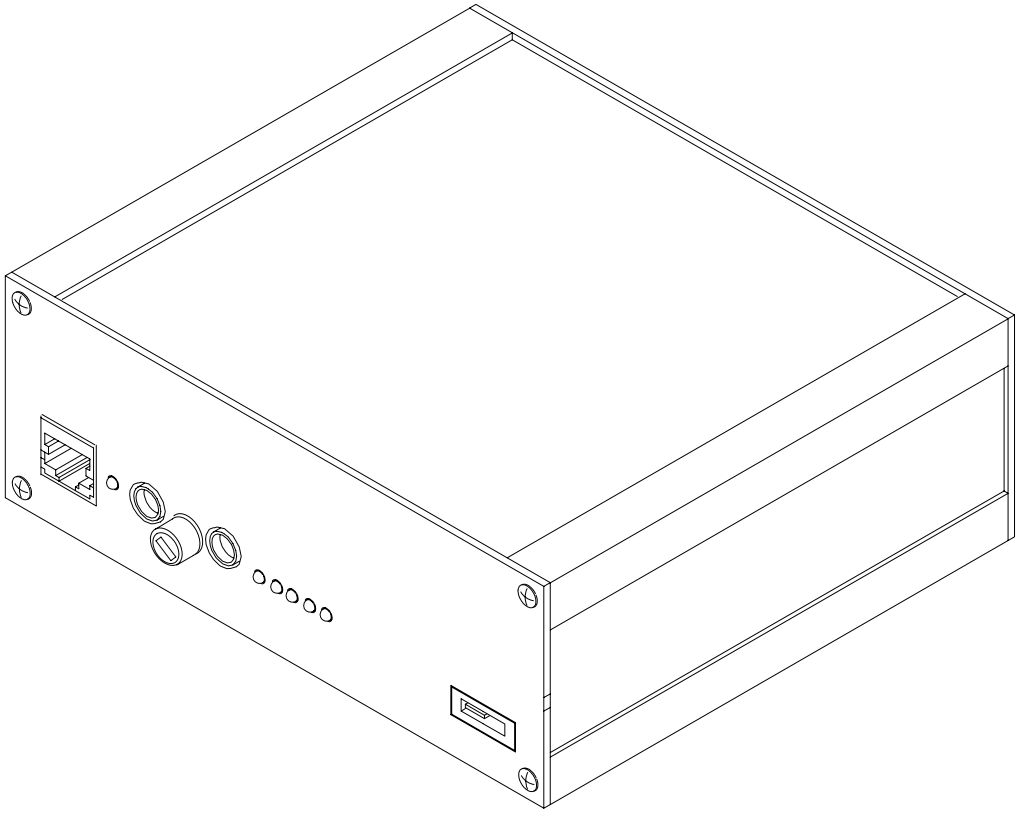
The sales pack includes:

- FPS-8 Flash Prommer 0750123
- FPS-8 Activation Sheet 9359289
- Universal Power Supply 0680032
- AXS-4 Service Cable (D9-D9) 0730090
- Printer cable 0730029

Sales package code

FPS-8 Flash Prommer: 0080321

Figure 1: View of FPS-8



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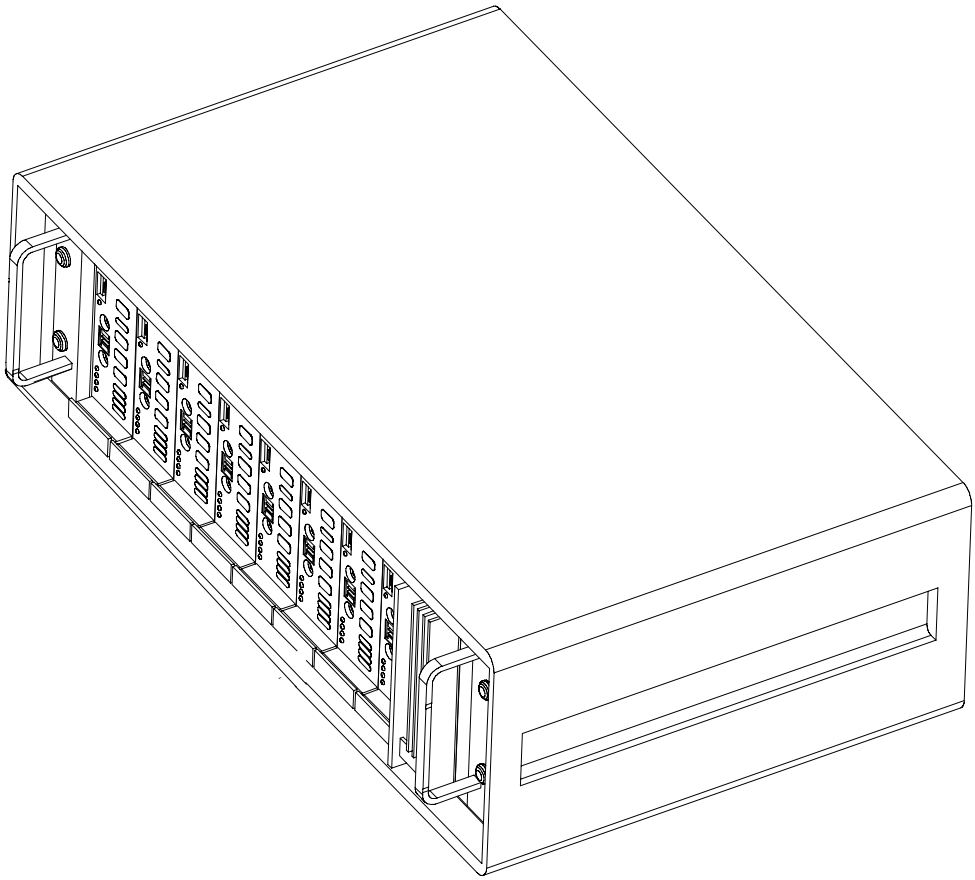
FPS-8C Parallel Flash Prommer (Sales Pack)

The Parallel Flash Prommer FPS-8C is used with DA-11 and JBV-1. Flash programming can be done to maximum of 8 phones parallel. FPS-8C consists of eight SF11C programming cards. SF11C card is functionally identical to FPS-8.

Sales package code

FPS-8C Parallel Flash Prommer: 0080396

Figure 2: View of FPS-8C



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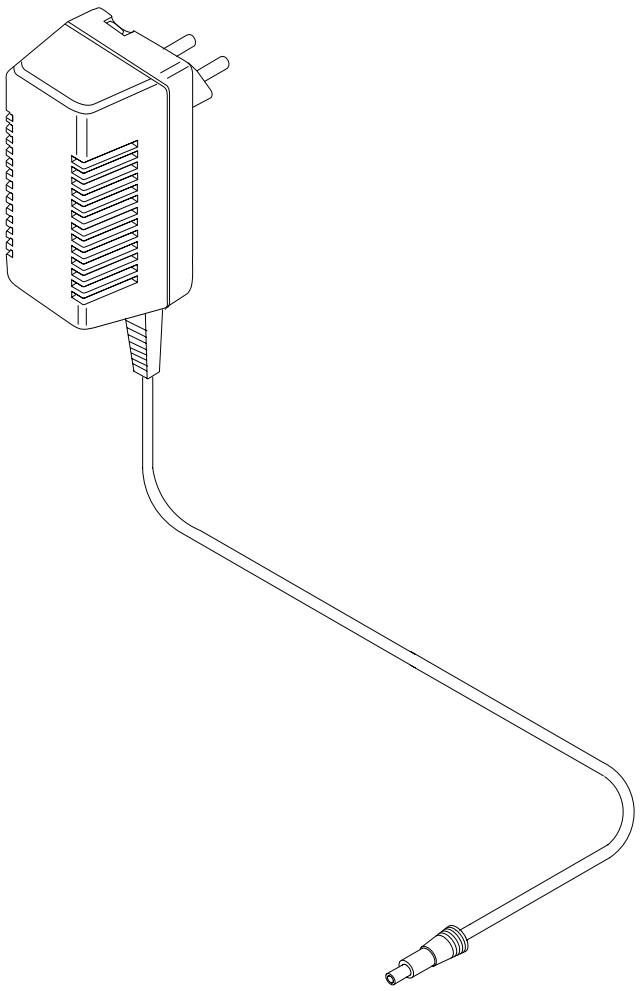
ACF-8 Universal Power Supply

ACF-8 Universal Power Supply is used to power FPS-8. ACF-8 has 6 V DC and 2.1 A output.

Product Code

ACF-8 Universal Power Supply: 0680032

Figure 3: View of ACF-8



SF-11 POS (Point Of Sale) Flash Loading Adapter

SF-11 POS Flash Loading Adapter is used in place of the phone's normal battery during service, to supply a controlled operating voltage.

Product Code

SF-11 POS Flash Loading Adapter: 0770588

Figure 4: View of SF-11

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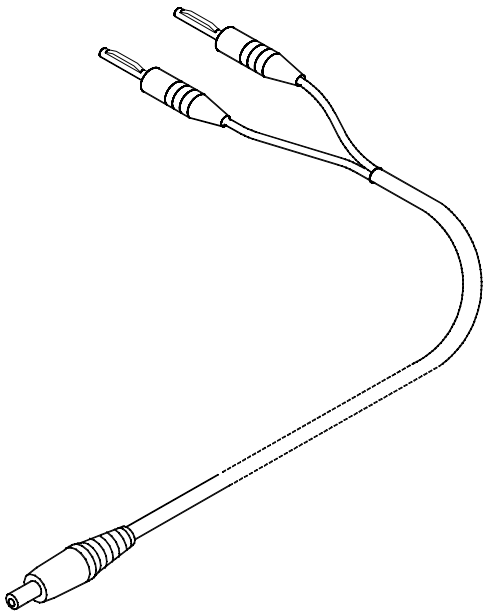
FLC-2 DC Cable

The FLC-2 is used to supply a controlled operating voltage.

Product Code

FLC-2 DC Cable: 0730185

Figure 5: View of FLC-2



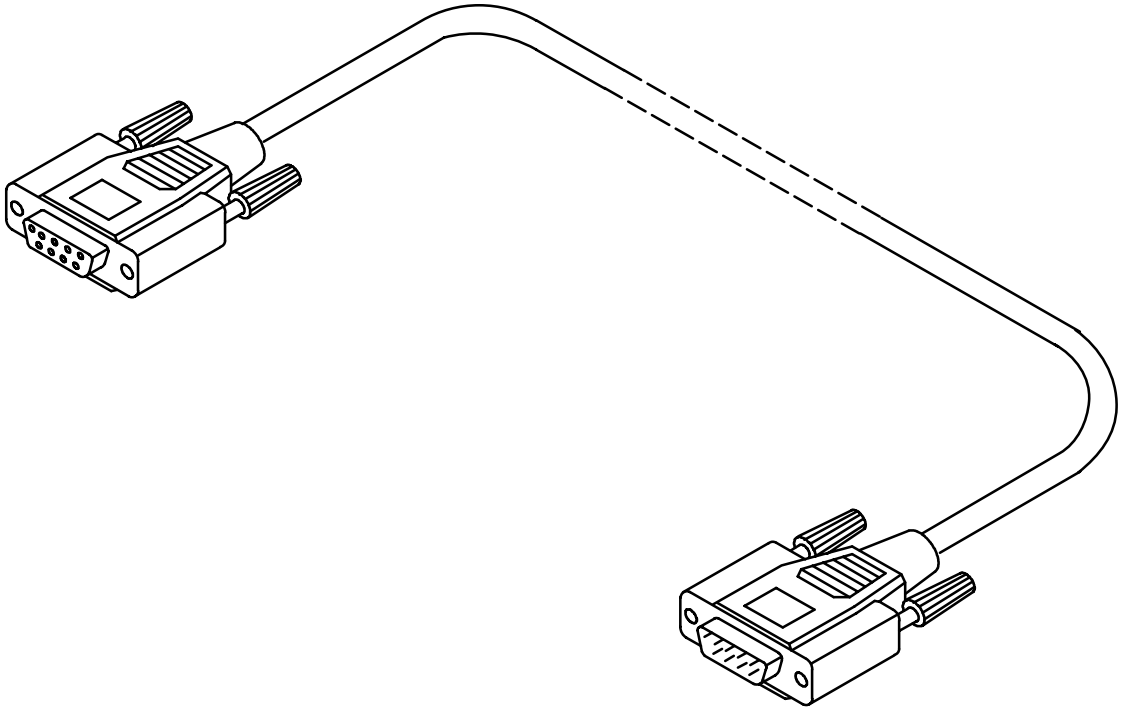
AXS-4 Service Cable

The AXS-4 D9-D9 Service Cable is used to connect two 9 pin D connectors e.g. between PC and FPS-8. Cable length is 2 meters.

Product code

AXS-4 D9-D9 Service Cable: 0730090

Figure 6: View of AXS-4



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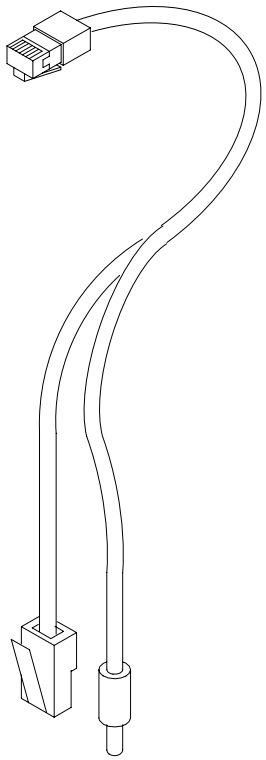
XCS-1 Service Cable

The XCS-1 Service Cable is used to connect FLS-4S to SF-11.

Product code

XCS-1 Service Cable: 0730218

Figure 7: View of XCS-1



SW Security Device PKD-1

SW security device is a piece of hardware enabling the use of the service software when connected to the parallel (LPT) port of the PC. Without the dongle present it is not possible to use the service software. Printer or any such device can be connected to the PC through the dongle if need ed.

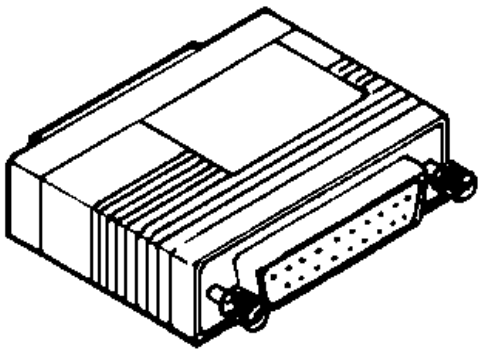
Caution:Make sure that you have switched off the PC and the printer before making connections!

Caution:Do not connect the PKD-1 to the serial port. You may dam age your PKD-1!

Product Code

SW Security Device PKD-1: 0750018

Figure 8: View of SW Security Device



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FLS-4S POS (Point Of Sale) Flash Device (Sales Pack)

FLS-4S is a dongle and flash device incorporated into one package, developed specifically for POS use.

Product Code

Sales Pack - Europe/Africa	0080541
Sales Pack - APAC	0080542
Sales Pack - US	0080543

Figure 9: View of FLS-4S

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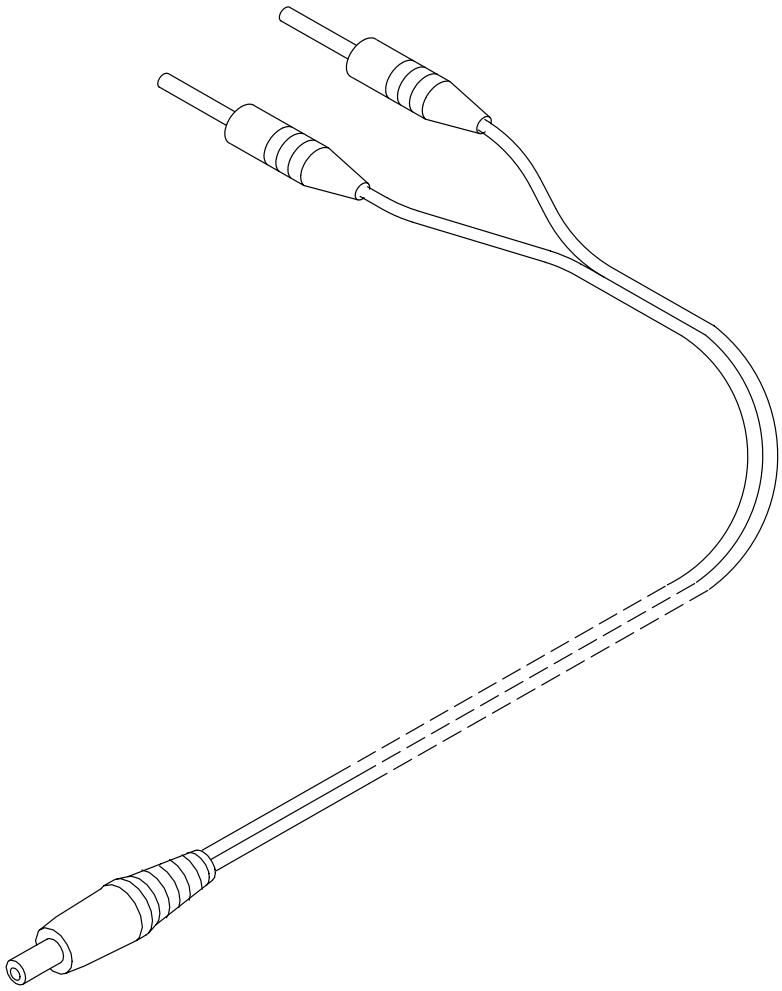
PCS-1 Power Cable

The PCS-1 Power Cable (DC) is used to connect e.g. JBV-1 to FPS-8.

Product Code

PCS-1 Power Cable: 0730012

Figure 10: View of PCS-1



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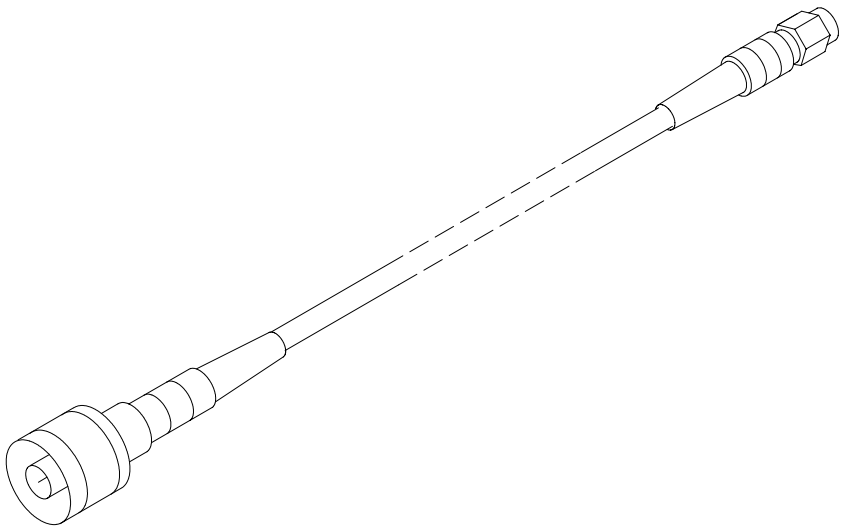
XRF-1 RF Cable

RF cable XRF-1 is used to connect e.g. Module Jig MJ-17 to RF measurement equipment.

Product code

XRF-1 RF Cable: 0730085

Figure 11: View of XRF-1



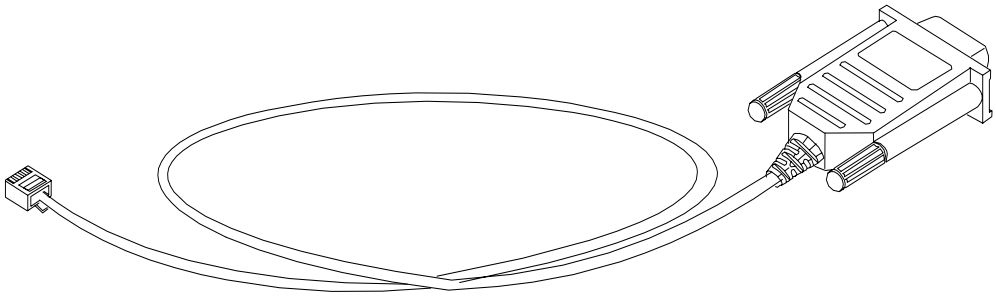
DAU-9S FBUS Cable

The FBUS Cable DAU-9S has a modular connector, and is used with between PC's serial port and, e.g., Module Jig MJ-17.

Product Code

DAU-9S FBUS Cable: 0730108

Figure 12: View of DAU-9S



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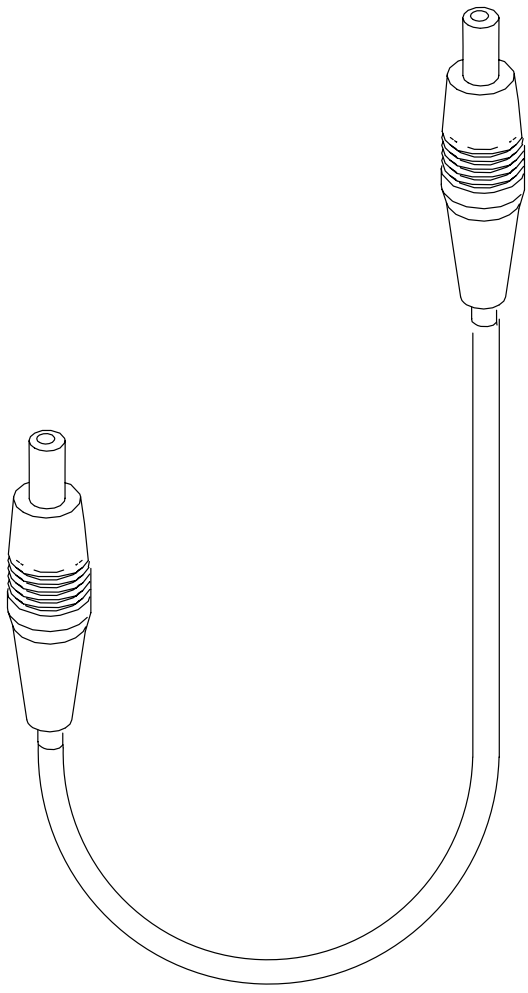
SCB-3 DC Cable

The DC Cable SCB-3 is used to connect, e.g., JBV-1 to the phone.

Product Code

SCB-3 DC Cable: 0730114

Figure 13: View of SCB-3



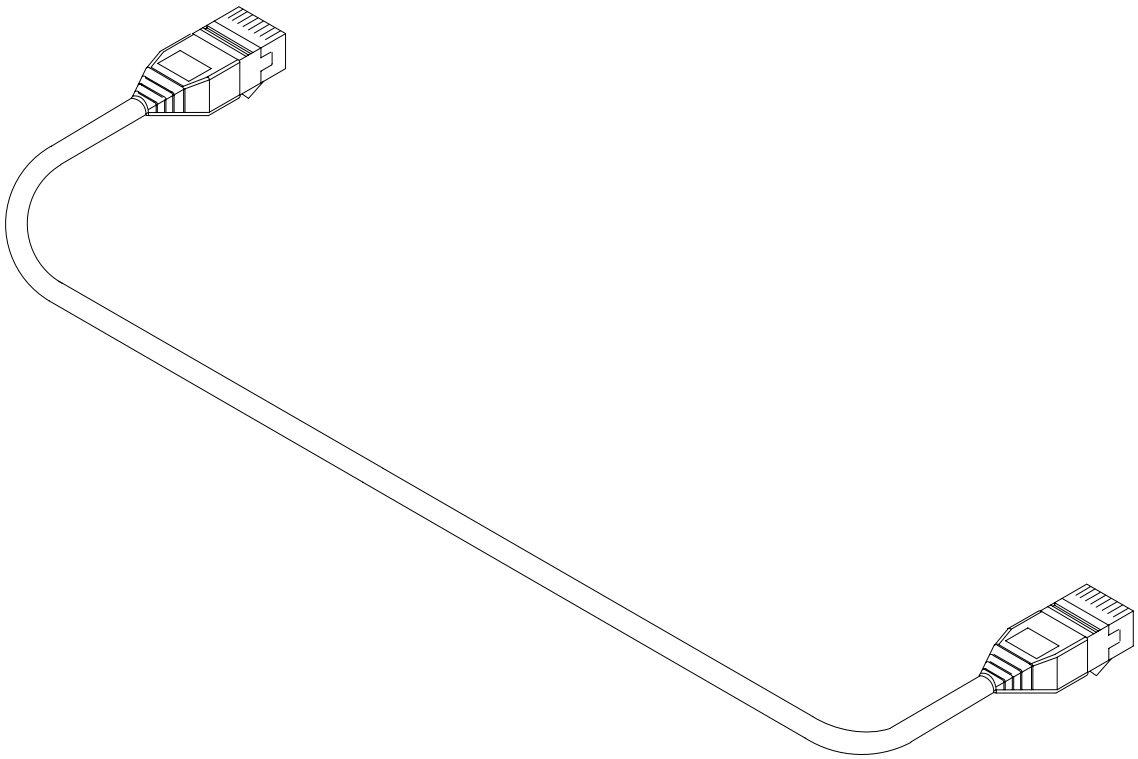
XCS-4 Modular Cable

XCS-4 is a shielded cable (one specially shielded conductor) modular cable for flashing and service purposes.

Product code

XCS-4 Modular Cable: 0730178

Figure 14: View of XCS-4



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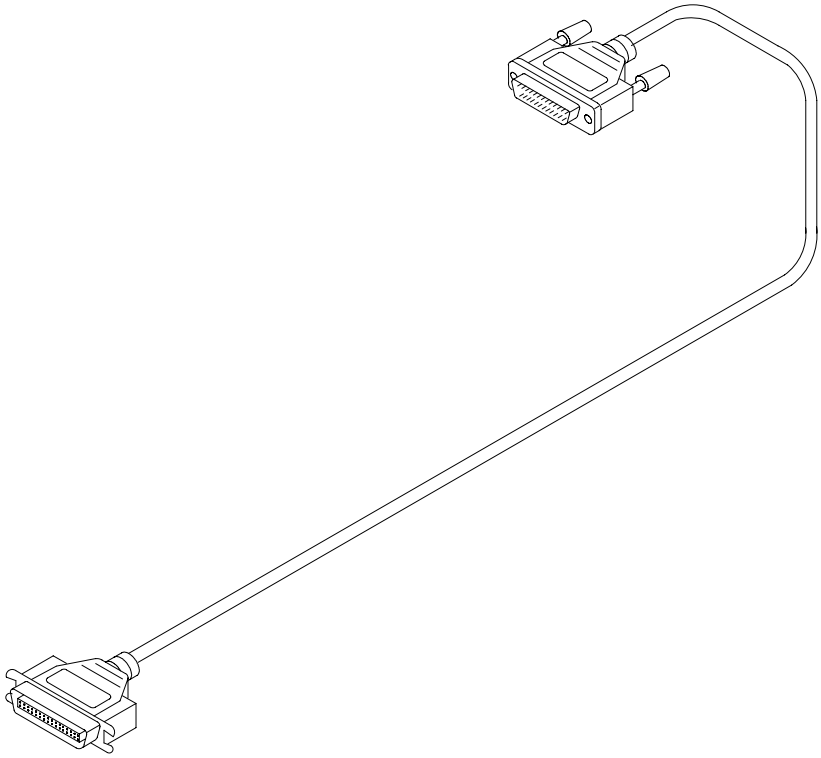
Printer Cable

This cable is used to connect the PC to FPS-8.

Product code

Printer Cable: 0730029

Figure 15: View of Printer Cable



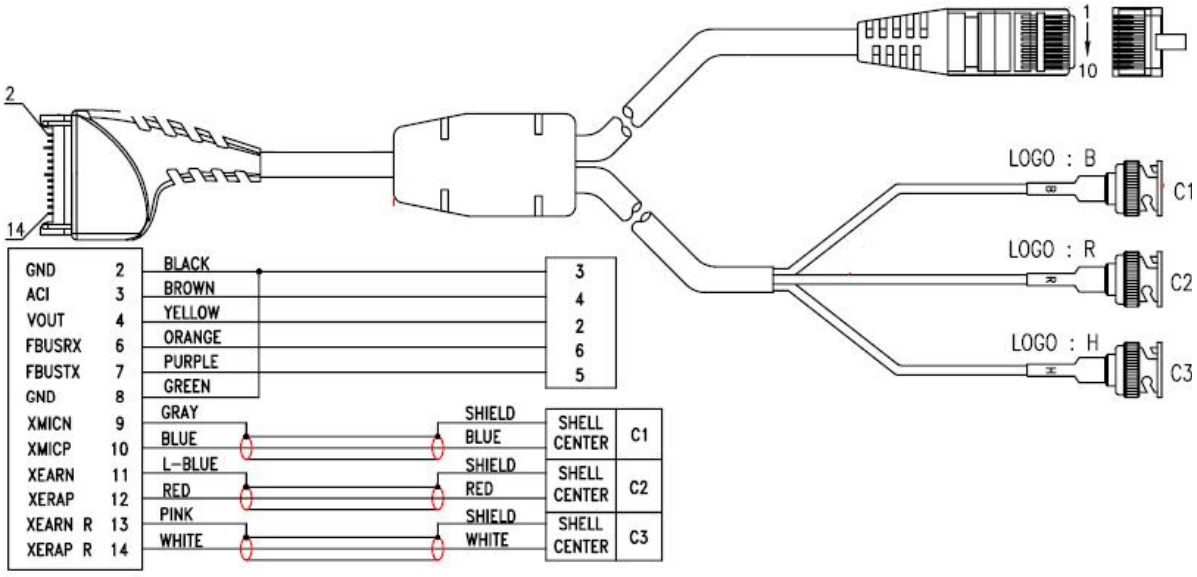
CA-6UT Service Audio Cable

CA-6UT is used for FM radio troubleshooting.

Product code:

CA-6UT Service Audio Cable: 0730297

Figure 16: View of CA-6UT



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